SHIBPUR DINOBUNDHOO INSTITUTION (COLLEGE)
B.Sc. (General) Part – III (1+1+1) CU Examination 2020
CHEMISTRY PRACTICAL
Paper - IVB   F.M: 25

Answer the following questions according to the instructions given

1. Write down the theory and determine total hardness of the water sample using given data.

A. Write down the principle for the determination of hardness of water mentioning the following points.   **10**

a)   Permanent and temporary hardness.

b)   Complexometric reaction involved.

c)   Name and role of the buffer solution used.

d)   Name and role of the indicator used.

e)   Working formula.

B. Make the table for the standardization EDTA and calculate the strength of EDTA using given data.   **2.5**

Strength of zinc acetate solution =   0.985 (M/100)

Volume of zinc acetate taken = 25 ml

Volume of EDTA required for standardization of Zn-acetate solution are, 24.2 ml, 24.4 ml, 24.4 ml (take average of three values).

C. Make the table for the titration of supplied hard water using the following data.

2.5

Volume of hard water taken = 50 ml

Volume of EDTA required for titration of hard water are 28.6 ml, 28.8 ml, 28.6 ml (take average of three values).

D. Calculate the hardness of the supplied water solution in ppm.   **5**

2. Answer any **five** of the following questions.   **(1×5 = 5)**

    a) Mention the name of an indicator which is suitable for the titration of strong acid and weak base.

    b) What is the color of phenolphthalein indicator in acidic and alkaline medium?

    c) What is the effect of temperature on solubility of a particular substance in a particular solvent?

    d) An aqueous solution of Na_2CO_3 is acidic or basic?

    e) What do you mean by half neutralization point of an acid-base titration?

    f) Give one example of sparingly soluble salt.